Amendments to the Claims:

This Listing of Claims should replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently Amended) A method for detecting the presence or absence of a bacterium in a sample selected from a wound, a body fluid or fluid from a wound, said method comprising the steps of:

a) contacting said sample with a surface-attached, detectably labeled synthetic α1-proteinase inhibitor reactive site loop domain peptide substrate under conditions that result in cleavage of said substrate by an enzyme produced in said sample by a bacterium; and

b) detecting a cleavage or an absence of the cleavage of the substrate, the cleavage of the substrate indicating the presence of the bacterium in the sample and absence of the cleavage of the substrate indicating absence of the bacterium in the sample.

2. (Original) A method according to Claim 1, wherein the bacterium is a wound-specific bacterium selected from the group consisting of *Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pyogenes, Pseudomonas aeruginosa, Enterococcus faecalis, Serratia marcescens, Proteus mirabilis, Enterobacter clocae, Acetinobacter anitratus, Klebsiella pneumonia,* and *Escherichia coli.*

3. (Previously Presented) A method according to Claim 1, wherein the enzyme is a protease.

4. (Previously Presented) A method according to Claim 1, wherein the substrate is labeled with a fluorescent probe and a quencher dye molecule.

5. (Previously Presented) A method according to Claim 1, wherein the substrate is labeled by a label selected from the group consisting of spin labels, antigen tags, epitope tags, haptens,

enzyme labels, prosthetic groups, fluorescent materials, pH-sensitive materials, chemiluminescent materials, colorimetric components, bioluminescent materials, and radioactive materials.

6. (Previously Presented) A method according to Claim 5, wherein the substrate comprises at least one of the peptides selected from the group consisting of EAAGAMFLEAIPK (SEQ ID NO: 1), EGAMFLEAIPMSIPK (SEQ ID NO: 2), KGTEAAGAMFLEAIPMSIPPEVK (SEQ ID NO: 3), GAMFLEAIPMSIPPE (SEQ ID NO: 4), and CGAMFLEAIPMSIPAAAHHHHH (SEQ ID NO: 5).

7. (Previously Presented) A method according to Claim I, wherein the sample is selected from the group consisting of a wound surface on a subject and a fluid from a wound on a subject.

8. (Currently Amended) A method according to Claim 1, wherein the surface to which said substrate is attached is a biosensor surface associated with ~~on~~ a solid support.

9. (Previously Presented) A method according to Claim 8, wherein the solid support is selected from the group consisting of a wound dressing, a container for holding body fluids, a disk, a scope, a filter, a lens, a foam, a cloth, a paper, a suture, a dipstick, a swab, a urine collection bag, a blood collection bag, a plasma collection bag, a test tube, a catheter, and a well of a microplate.

10. (Previously Presented) A method according to Claim 8, wherein the solid support comprises a material required to be free of microbial contaminants.

11. (Currently Amended) A method according to Claim 1, wherein the substrate comprises at least two dissimilar colorimetric components and the substrate is attached to a solid support surface selected from a polymer, a membrane, a resin, a glass or a sponge, wherein modification of the substrate comprises cleaving at least a portion of the substrate that includes one of the colorimetric components, the cleaving resulting in a visible color change.

12. (Previously Presented) A method according to Claim 11, wherein the colorimetric components are covalently attached to the peptide.

Claims 13-22 (Canceled)